

4.8 Hydrology, Flooding, and Water Quality

4.8.1 Environmental Setting

PHYSICAL SETTING

Water resources are important not only for residents and businesses but also for sustainability of the natural environment. Belmont's natural waterways also contribute to the character of the community. Careful stewardship is critical to conserve and protect water resources, ensure water quality, manage stormwater, and create a more livable city. Water quality standards are established and enforced by the State and the San Francisco Bay Regional Water Quality Control Board (RWQCB). The RWQCB also issues general and individual National Pollutant Discharge Elimination System permits for certain activities, per the federal Water Pollution Control Act.

Climate

The Belmont area has a Mediterranean climate, with moderate to warm summers and mild winters. The average daily maximum temperature in September, the warmest month, is about 78 degrees Fahrenheit, and the average minimum temperature in January, the coolest month, is about 42 degrees. The area receives an average of 18 to 19 inches of rainfall annually.¹

Surface Water Hydrology

The Planning Area is located in the Belmont Creek watershed, which drains about three square miles including parts of San Carlos and unincorporated San Mateo County.² Surface water resources include coastal waters, streams, and ponds. Shown in Figure 4.3-2 in the "Biological Resources" section of this EIR, there are a number of surface water resources in the Planning Area.

North of Ralston Avenue, the eastern branch of Laurel Creek flows through the San Juan Hills area down into the City of San Mateo. There are a number of smaller tributaries in Belmont's northwest neighborhoods that contribute to the creek. South of Ralston Avenue, Belmont Creek originates in the hills above Hallmark Drive and flows from the east face of Pulgas Ridge to the San Francisco Bay. It flows through Water Dog Lake, a man-made reservoir located in the Western Hills, in the

¹ Mid-Peninsula Water District. *Urban Water Management Plan*. June 2011.
<https://www.midpeninsulawater.org/images/files/MPWD_FinalUWMP_2010.pdf> Accessed April 2016.

² "Biological Assessment of Belmont Creek and Comparison with Existing San Mateo County Data." Prepared by BioAssessment Services. Prepared for EOA, Inc. August 2007.
<<http://www.flowstobay.org/files/studiesresearch/2007-08belmontcreek-bioassessment-rpt.pdf>> Accessed April 2016.

upper portion of the Belmont Creek drainage area. Below Water Dog Lake, Belmont Creek runs from west to east, roughly parallel to Ralston Avenue. The creek exits the City of Belmont upstream of Old County Road at Harbor Boulevard, and then forms the boundary between the Harbor Industrial Area and the City of San Carlos. It reenters the City of Belmont east of Highway 101, and then flows through O'Neill and Belmont sloughs before discharging to San Francisco Bay. Additionally, there are several tributaries to Belmont Creek along Carlmont Drive, Alameda de las Pulgas, and Notre Dame de Namur University.

East of Highway 101, O'Neill Slough is connected to the San Francisco Bay via Belmont Slough to the east. O'Neill Slough is a brackish mix of freshwater from the creeks and salt water from the Bay.

Surface Water Quality

A community's impact on water quality is closely related to the hydrologic context of a region and the sources and types of pollutants that can further degrade or impair the area's water bodies and resources. As additional development occurs in the Planning Area, impervious surfaces may increase from the placement of roads, parking lots, buildings, and other infrastructure. These facilities will reduce the amount of water infiltration into the ground and will increase direct runoff into the city's creeks and lagoons, which could result in further water quality degradation and flooding concerns. In addition, if not controlled, development activities have the potential to cause soil erosion and sedimentation, which may result in increased rates of surface runoff, decreased water quality, and related environmental damage.

Other sources of water quality impacts include direct discharge associated with industrial/commercial activities, automobiles, and herbicides. Pollutant sources may be generated from past waste disposal practices and chemicals and fertilizers applied to landscaping. Contaminants may include sediment, Polychlorinated Biphenyl (PCBs)/mercury, hydrocarbons and metals, pesticides, nutrients, bacteria, and trash.

An effective use of site, source, and treatment control best management practices is crucial to minimizing pollutants and reducing water quality impacts. One way to reduce urban runoff volume is to maximize the percentage of permeable surfaces throughout the Planning Area in order to allow increased percolation and minimize the amount of runoff directed to impervious areas (e.g., parking lots). In addition, pollutant sources can be minimized by incorporating landscaped areas, drought tolerant plant materials, and slow conveyance of runoff through vegetated areas.

As storm drains are not connected to sanitary sewer infrastructure, water conveyed to these drains is not treated prior to discharging into creeks, lagoons, and the ocean. Belmont's stormwater program includes maintenance and operation of storm drain infrastructure; stormwater pollution prevention and National Pollutant Discharge Elimination System (NPDES) Permit compliance; and street sweeping.³ For details regarding the NPDES program, see the Regulatory Setting section below.

³ City of Belmont. "Storm Drain System." <<http://www.belmont.gov/city-hall/public-works/engineering/infrastructure/storm-drain-system>> Accessed April 2016.

Treated sewage generated in Belmont is eventually discharged to the San Francisco Bay via the Silicon Valley Clean Water wastewater treatment facility, which is located in Redwood Shores. A small amount of wastewater from Belmont flows to the San Mateo Wastewater Treatment Plant.

Groundwater Hydrology

Groundwater consists of water within underground aquifers that is recharged from the land surface. The rate of groundwater recharge is affected by the permeability of the ground surface. The San Francisco Bay Hydrologic Region includes 47 basins and subbasins. The Planning Area is located in the Santa Clara Valley Groundwater Basin, San Mateo Subbasin, identified as Basin 2-09.03. The San Mateo Subbasin covers 48,100 acres with the San Cruz Mountains on the west and the San Francisco Bay on the east.

The average annual precipitation ranges from 16 to 24 inches within the basin area. Recharge occurs through infiltration of precipitation and water from streams. The overall groundwater storage capacity and storage levels are currently unknown. The Santa Clara Formation of Plio-Pleistocene age and the Quaternary age alluvial deposits are the water bearing formations in the subbasin.

Based on a study performed in 1997 by the US Geological Survey and the Town of Atherton, most groundwater samples in the subbasin were designated calcium magnesium carbonate bicarbonate waters. One sample had nitrate-nitrogen concentration in excess of the California Department of Health Services and the US Environmental Protection Agency maximum contaminant levels.⁴ The Planning Area's water is supplied by the Mid-Peninsula Water District (MPWD), as discussed in Section 4.13 of this EIR, "Utilities." The Water District does not draw on groundwater from wells to service the population. However, some private residences in Belmont may have private wells, which are addressed in Section 26 of the Belmont Municipal Code.

Flooding and Coastal Hazards

FEMA Floodplains

Floodplains are areas of land located adjacent to rivers or streams that are subject to recurring inundation or flooding. Preserving or restoring natural floodplains helps with flood loss reduction benefits and improves water quality and habitat. Floods are typically described in terms of their statistical frequency. For example, a 100-year floodplain describes an area within which there is a one percent probability of a flood occurring in any given year. The Federal Emergency Management Agency (FEMA) prepares Flood Insurance Rate Maps (FIRMs), which identify 100-year and 500-year flood zones. As shown in Figure 4.8-1, the 100-year Flood Zone in Belmont includes almost all of the area east of Highway 101, as well as areas along the Belmont Creek. The 500-year Flood Zone also includes almost all of the area east of Highway 101, the area east of El Camino Real and south of Ralston Ave, and small areas along the Belmont Creek.

⁴ California Department of Water Resources. "California's Groundwater: Bulletin 118, Basins and Subbasins of the San Francisco Bay Hydrologic Region." <<http://www.water.ca.gov/groundwater/bulletin118/sanfranciscobay.cfm>> Accessed April 2016.

Dam Inundation

Dam inundation is caused by the release of impounded water from structural failure or overtopping of a dam. The State Division of Safety of Dams regularly inspects dam facilities. According to the San Mateo County Department of Planning and Building Dam Failure Inundation Areas map, some areas of the Planning Area are at risk of dam inundation. The Crystal Springs Reservoir threatens the eastern half of the city of San Mateo, almost all of Foster City, and areas around the O'Neill Slough and along Chesterton Avenue west of Highway 101 in the Planning Area. In addition, the failure at the Notre Dame dam in Belmont poses a risk of the Belmont Creek flooding the area around its banks.⁵

Sea Level Rise

In California, sea levels have risen almost eight inches along the California coast over the last century, resulting in eroded shorelines, deterioration of infrastructure, and depletion of natural resources.⁶ The California State Lands Commission released a report related to sea level preparedness in California, which summarized the efforts of California, federal agencies and other coastal states to address sea level rise and provided recommendations to reduce the impacts of sea level rise on California's communities. In addition, the California Natural Resource Agency's (CNR) 2014 *Safeguarding California: Reducing Climate Risk* summarizes the most recent science on climate change impacts and recommends response strategies, and the 2016 *Safeguarding California: Implementation Action Plans* provides actions for implementing the strategies.

San Mateo County's multi-jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) identifies that sea level rise threatens some of the San Francisco Bay region's infrastructure, including the Oakland and San Francisco International Airports. For more details regarding the MJ-LHMP, see the Regulatory Setting section below.

The Mean Higher High Water (MHHW) sea level elevation represents the elevation past which sea level rise is considered inundation by the National Oceanic and Atmospheric Administration. The most well-known extreme high tide condition in San Francisco Bay is often referred to as a "King Tide," a colloquial term that refers to the especially high tide conditions that happen only a few times a year. King Tides can be 12 (or more) inches higher than MHHW. Therefore, the inundation of low-lying areas around the Bay observed during a King Tide event is often used as a real-world illustration of the areas around the Bay that would be subjected to regular, daily inundation by mid-century with sea level rise.

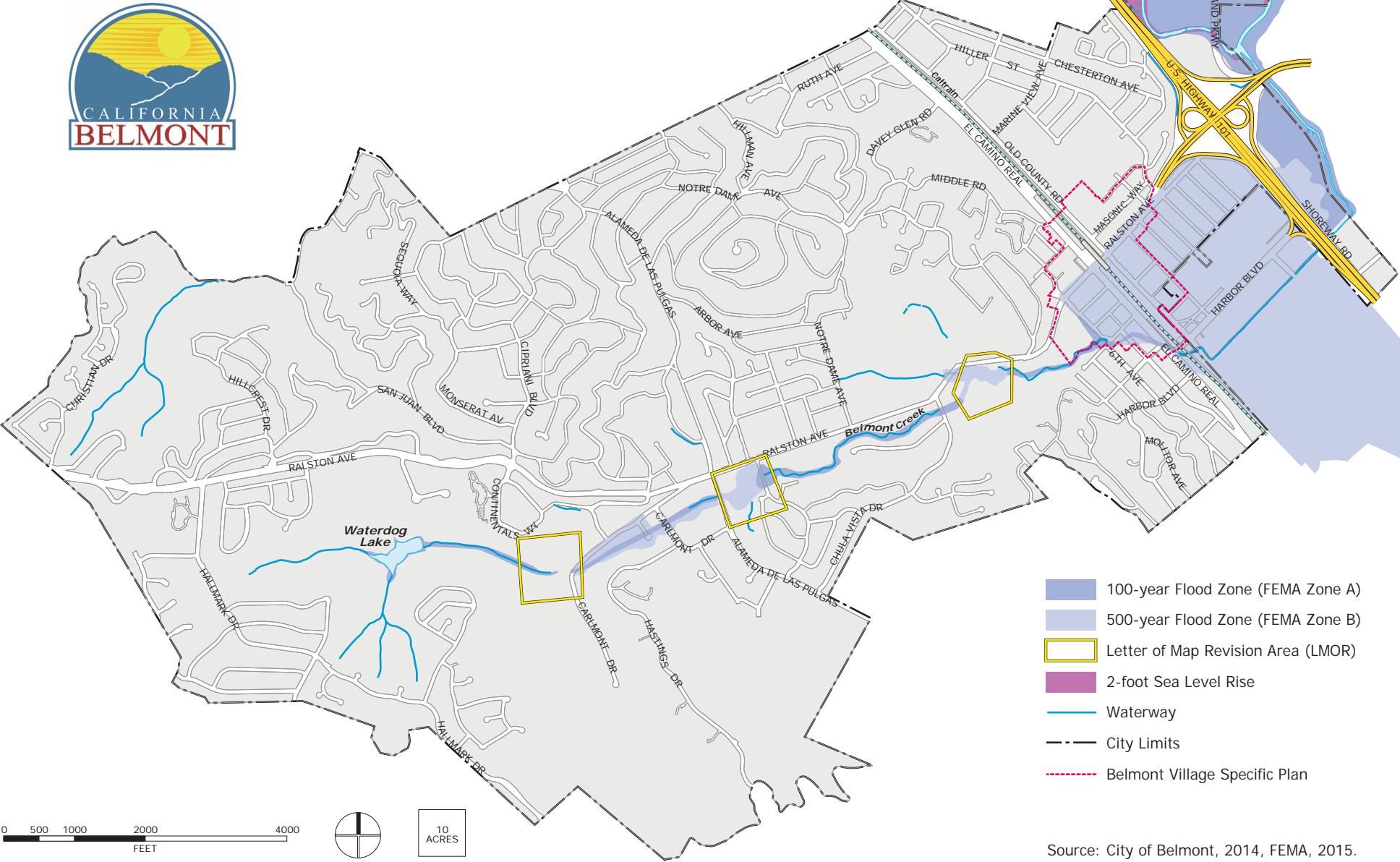
Figure 4.8-1 shows areas of the Planning Area that could be at risk if the sea level rose by two feet above MHHW, including areas near Highway 101 and the O'Neill Slough. This extent of inundation is used as a surrogate for 12 inches of sea level rise at mid-century, coupled with a King Tide event. Potential strategies to reduce the impacts of sea level rise on the city may include hard engineering (seawalls, breakwaters, levees) soft engineering (wetlands restoration, beach nourishment and/or replenishment, buffer areas) and restricting or reducing development near the coastal areas.

⁵ San Mateo County. "Dam Failure Inundation Areas-San Mateo County."

http://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Dam_Failure_Inundation.pdf Accessed April 2016.

⁶ Matthew Heberger, Heather Cooley, Pablo Herrera, Peter H. Gleick, Eli Moore. Pacific Institute. *The Impacts of Sea-Level Rise on the California Coast*. <http://pacinst.org/wp-content/uploads/sites/21/2014/04/sea-level-rise.pdf> Accessed April 2016.

Figure 4.8-1: Flood Zones



Source: City of Belmont, 2014, FEMA, 2015.

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Safety and Management

Long-term prevention, mitigation efforts, and risk-based preparedness for specific hazards within the city are addressed as a part of the MJ-LHMP. The goal of the MJ-LHMP is “to maintain and enhance a disaster-resistant region by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters.”⁷ It identifies specific risks for the San Francisco Bay Area and provides methods to help minimize damage caused by natural and manmade disasters. According to the MJ-LHMP, the most significant hazards in the region are related to earthquakes, including surface faulting, ground shaking, liquefaction, landslides, and tsunamis, as well as to weather, including flooding, landslides, wildfires, drought, and climate change.

Currently, San Mateo County, is preparing a comprehensive update to its MJ-LHMP, and Belmont is in the process of preparing its first Local Hazard Mitigation Plan.

Tsunamis

Tsunamis are long wavelength ocean waves generated by sudden movements of the ocean bottom during events such as earthquakes, volcanic eruptions, or landslides. The County of San Mateo maps zones of high risk for tsunami inundation for coastal areas throughout the county. According to the Tsunami Inundation Map for Emergency Planning map of the San Mateo Quadrangle from June 15, 2009, no regions in the Planning Area are at risk for tsunami inundation.⁸

REGULATORY SETTING

Federal Regulations

Clean Water Act (CWA)

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into “waters of the United States.” The Act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include:

- Section 303(d) – Total Maximum Daily Loads
- Section 401 – Water Quality Certification
- Section 402 – National Pollutant Discharge Elimination System Program
- Section 404 – Discharge of Dredge or Fill Material

Section 303(d) requires states, territories, and authorized tribes to develop a list of water-quality limited segments of rivers and other water bodies under their jurisdiction. These waters on the list

⁷ Association of Bay Area Governments. *Taming Natural Disasters, Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area, 2010 Update of 2005 Plan*. <http://quake.abag.ca.gov/wp-content/documents/ThePlan-Chapters-Intro.pdf> Accessed April 2016.

⁸ California Department of Conservation. “Tsunami Inundation Map for Emergency Planning San Mateo Quadrangle.” <http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanMateo> Accessed December 2016.

do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for waters on the list and develop action plans, called Total Maximum Daily Loads (TMDL), to improve water quality. These are action plans designed to improve the quality of water resources. As part of the TMDL process, municipalities must examine the water quality problems and identify sources of pollutants in order to create specific actions designed to improve water quality.

Section 401 requires every applicant for a federal permit or license for any activity that may result in a discharge to a water body to obtain a water quality certification that the proposed activity will comply with applicable water quality standards.

Section 402 regulates point-source discharges to surface waters through the NPDES program. In California, the State Water Resources Control Board (State Water Board or SWRCB) oversees the NPDES program, which is administered by the Regional Water Quality Control Boards (RWQCBs). The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits. The NPDES program covers municipalities, industrial activities, and construction activities. The NPDES program includes an industrial stormwater permitting component that covers ten categories of industrial activity that require authorization under a NPDES industrial stormwater permit for stormwater discharges. Construction activities, also administered by the State Water Board, are discussed below. Section 402(p) of the federal CWA, as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from municipal separate storm sewer systems (MS4s), stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges, which are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, the EPA published regulations (40 CFR Part 122), which prescribe permit application requirements for MS4s pursuant to CWA 402(p). On May 17, 1996, the EPA published an Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems, which provided guidance on permit application requirements for regulated MS4s. MS4 permits include requirements for post-construction control of stormwater runoff in what is known as Provision C.3. The goal of Provision C.3 is for the Permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development (LID) techniques.

Section 404 establishes a permit program, administered by the United States Army Corps of Engineers (USACE), to regulate the discharge of dredge or fill materials into waters of the U.S., including wetlands. Activities in waters of the U.S. that are regulated under this program include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry. CWA Section 404 permits are issued by USACE.

Federal Antidegradation Policy, 40 CFR 131.12

The federal antidegradation policy is designed to protect existing water uses, water quality, and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

- Existing instream uses and the water quality necessary to protect those uses shall be maintained and protected;
- Where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and
- Where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

National Toxics Rule and California Toxics Rule, 40 CFR 131

In 1992, the EPA promulgated the National Toxics Rule under the CWA to establish numeric criteria for priority toxic pollutants for 14 states to bring all states into compliance with the requirements of section 303(c)(2)(B) of the CWA. The National Toxics Rule established water quality standards for 42 pollutants not covered under California's statewide water quality regulations at that time. As a result of the court ordered revocation of California's statewide Basin Plans in September 1994, the EPA initiated efforts to promulgate additional federal water quality standards for California. In May 2000, the EPA issued the California Toxics Rule, which includes all the priority pollutants for which the EPA has issued numeric criteria not included in the National Toxics Rule.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), administered by the EPA in coordination with the states, is the main federal law that ensures the quality of drinking water. Under the SDWA, the EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Department of Public Health administers the regulations contained in the SDWA in the State of California.

Regulations Covering Development in Floodplains

National Flood Insurance Program

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief by restricting development on floodplains.

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA issues Flood Insurance Rate Map (FIRMs) for communities participating in the NFIP.

Executive Order 11988

Executive Order 11988 directs federal agencies to avoid to the extent practicable and feasible short- and long-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Further, this Executive Order requires the prevention of uneconomic, hazardous, or incompatible use of floodplains; protection and preservation of the natural and beneficial floodplain values; and consistency with the standards and criteria of the National Flood Insurance Program (NFIP).

Federal Highway Administration regulations require that a local hydraulic study and risk assessment be performed where a planned facility or action would encroach on a base floodplain or support incompatible floodplain development. When the hydraulic study indicates significant encroachment, findings must be made that it is the only practicable alternative. The hydraulic study and risk assessment protocol are set forth in the Caltrans Highway Design Manual (Caltrans 2010). This manual provides guidance and procedures whenever an encroachment permit is anticipated.

Disaster Mitigation Act

In 2000, FEMA adopted revisions to Title 44 of the Code of Federal Regulations (44 CFR). This revision is known as Disaster Mitigation Act (DMA). DMA 2000, Section 322 (a-d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a Hazard Mitigation Plan (HMP) that describes the process for assessing hazards, risks and vulnerabilities, identifying and prioritizing mitigation actions, and engaging/soliciting input from the community (public), key stakeholders, and adjacent jurisdictions/agencies.

State Regulations

Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Water Quality Control Act established the SWRCB and divided the State into nine regional basins, each with a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the State's surface and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The Planning Area is within the jurisdiction of San Francisco Bay RWQCB.

The act authorizes the SWRCB to enact state policies regarding water quality in accordance with CWA 303. In addition, the act authorizes the SWRCB to issue Water Discharge Requirements (WDRs) for projects that would discharge to state waters. The Porter-Cologne Water Quality Control Act requires that the SWRCB or the San Francisco Bay RWQCB adopt water quality control plans (basin plans) for the protection of water quality. A basin plan must:

- Identify beneficial uses of water to be protected;
- Establish water quality objectives for the reasonable protection of the beneficial uses; and
- Establish a program of implementation for achieving the water quality objectives.

Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every three years in accordance with Article 3 of Porter-Cologne Water Quality Control Act and CWA 303(c).

Cobey-Alquist Floodplain Management Act

The Cobey-Alquist Floodplain Management Act (California Water Code 8400-8415) and Executive Order B-39-77 give support to the National Flood Insurance Program. The Act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. The Act also identifies requirements that jurisdictions must meet in order to receive State financial assistance for flood control. In 2002, the California Floodplain Management Task Force created and recommended a proposed revised Executive Order for the State's consideration.

California Water Code and Regional Water Quality Control Boards

The California Water Code (Porter-Cologne Water Quality Control Act) established the SWRCB and the RWQCBs as the principal State agencies having primary responsibility in coordinating and controlling water quality in California. The Code establishes the responsibility of the RWQCBs for adopting, implementing, and enforcing water quality control plans (i.e. Basin Plans), which set forth the State's water quality standards (i.e. beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses. The Planning Area lies within the jurisdiction of the San Francisco Bay RWQCB, which has adopted the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region, including the San Francisco Bay Estuary to implement plans, policies, and provisions for water quality management.

California Department of Public Health

The Drinking Water Program, which regulates public water supply systems, is a major component of the State Department of Public Health Division of Drinking Water and Environmental Management. Regulatory responsibilities include the enforcement of the federal and State Safe Drinking Water Acts, the regulatory oversight of public water systems, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. State regulations for potable water are contained primarily within the Food and Agricultural Code, the Government Code, the Health and Safety Code, the Public Resources Code, and the Water Code. Regulations are from Title 17 and Title 22 of the California Code of Regulations.

The regulations governing recycled water are found in a combination of sources including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations. Issues related to treatment and distribution of recycled water are generally under the influence of the RWQCB, while issues related to use and quality of recycled water are the responsibility of the California Department of Public Health.

State Water Quality Certification Program

The RWQCBs also coordinate the State Water Quality Certification Program, or Section 401 of the CWA. Under Section 401, states have the authority to review any permit or license that will result in a discharge or disruption to wetlands and other waters under state jurisdiction, to ensure that the actions will be consistent with the state's water quality requirements. This program is most often associated with Section 404 of the CWA, which obligates the USACE to issue permits for the movement of dredge and fill material into and from the "waters of the United States." Additionally, Section 404 requires permits for activities affecting wetlands. Prospective alterations of hydrologic

features such as wetlands, rivers, and ephemeral creek beds resulting from construction require Section 404 permits.

Streambed Alteration Agreement

The California Department of Fish and Wildlife (CDFW) regulates streambed alterations in accordance with the California Fish and Game Code 1601–1616: Streambed Alterations. Whenever a project proposes to alter a streambed, channel, or bank, an agreement with CDFW is required. The agreement is a legally binding document that describes measures agreed to by both parties to reduce risks to fish and wildlife in the stream system during the project. This is a separate process from CEQA approval but is usually coordinated with CEQA compliance. Agreements typically have fewer procedural and legal requirements than CEQA in order to work with small-scale projects that are important to fish. Timeframes for agreements are 30 days for CDFW to determine the completeness of an application and an additional 60 days to provide a draft agreement to the applicant.

California Construction Stormwater Permit

The California Construction Stormwater Permit (Construction General Permit)⁹, adopted by the SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. It prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges and all discharges that contain a hazardous substance in excess of reportable quantities established at 40 Code of Federal Regulations 117.3 or 40 Code of Federal Regulations 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

The Construction General Permit requires that all developers of land where construction activities will occur over more than one acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three Risk Levels established in the General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the Nation;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards; and
- Perform inspections and maintenance of all BMPs.

In order to obtain coverage under the NPDES Construction General Permit, the Legally Responsible Person must electronically file all Permit Registration Documents with the SWRCB prior to the start of construction. Permit Registration Documents must include:

- Notice of Intent;

⁹ *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ, National Pollutant Discharge Elimination System No. CAS000002.

- Risk Assessment;
- Site Map;
- SWPPP;
- Annual Fee; and
- Signed Certification Statement.

Typical BMPs contained in Stormwater Pollution Prevention Plans are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post construction runoff quantity (volume) and quality (treatment). The Stormwater Pollution Prevention Plan must also include a discussion of the program to inspect and maintain all BMPs.

Construction Dewatering Permit

The RWQCB construction dewatering permit is required for construction activities such as excavating and trenching in areas with shallow groundwater. Dewatering is regulated under state requirements for stormwater pollution prevention and control. Discharge of non-stormwater from an excavation or trench that contains sediments or other pollutants to water bodies is prohibited. Discharge of uncontaminated groundwater from an excavation or trench is a conditionally exempted discharge by the RWQCB. Since the removed water could be contaminated by chemicals released from construction equipment, disposal of this water would require permits either from the RWQCB for discharge to surface creeks or local agencies for discharge to sewers. Dewatering operations would require a NPDES permit, or an exemption, from the RWQCB, which would establish discharge limitations for specific chemicals, as applicable.

Regional and Local Regulations

Bay Conservation and Development Commission (BCDC)

The San Francisco Bay Conservation and Development Commission (BCDC) is a California State planning and regulatory agency with regional authority over the San Francisco Bay and Bay shoreline. Its mission is to protect and enhance San Francisco Bay and to encourage the Bay's responsible and productive use for this and future generations. BCDC manages the permitting of all projects that propose to fill or extract materials from the Bay; requires maximum feasible public access to the Bay shoreline; and leads a multi-agency effort to address sea level rise in the Bay. BCDC's jurisdiction includes the Bay and the first 100 feet inland from the shoreline around the Bay. While this area changes daily, it can include portions of the Planning Area east of Highway 101. BCDC's jurisdiction also covers portions of creeks and sloughs that flow into San Francisco Bay, which includes O'Neill Slough and Belmont Creek.

San Francisco Bay Water Quality Control Plan (Basin Plan)

The 2012 Basin Plan contains descriptions of the technical, legal, and programmatic bases of water quality regulations for the San Francisco Bay Region, which includes the Planning Area. The Basin Plan defines beneficial uses for water bodies in the region. The beneficial uses listed for water bodies in the Planning Area are shown in Table 4.8-1.

Table 4.8-1: Designated Beneficial Uses

Designated Beneficial Uses	Water Body			
	Belmont Creek	Belmont Slough	Laurel Creek	O'Neill Slough
Municipal and Domestic Supply (MUN)				
Freshwater Replenishment (FRSH)				
Cold Freshwater Habitat (COLD)				
Estuarine Habitat (EST)		Yes		Yes
Fish Migration (MIGR)				
Preservation of Rare and Endangered Species (RARE)		Yes		
Fish Spawning (SPWN)		Yes		
Warm Freshwater Habitat (WARM)	Yes		Yes	
Wildlife Habitat (WILD)	Yes	Yes	Yes	Yes
Body Contact Recreation (REC-1)	Yes	Yes	Yes	Yes
Noncontact Recreation (REC-2)	Yes	Yes	Yes	Yes

Source: RWQCB, 2012.

San Mateo Countywide Water Pollution Prevention Program (SMCWPPP)

SMCWPPP was established in 1990 and includes San Mateo County as well as 20 cities and towns in the county, including Belmont. The primary goal of SMCWPPP is to reduce pollution carried by stormwater throughout San Mateo County into local creeks, San Francisco Bay, and the Pacific Ocean. SMCWPPP maintains compliance with the NPDES Stormwater Discharge Permit and promotes stormwater pollution prevention.

Participating agencies, including the City of Belmont, must comply with the NPDES Stormwater Discharge Permit by ensuring that development and redevelopment mitigate water quality impacts to stormwater runoff during construction and operation phases of projects. These projects are subject to NPDES Provision C.3 and are grouped into categories based on project size. Group 1 includes new development and redevelopment projects that would replace or create more than one acre of impervious surface and Group 2 includes new development and redevelopment that would replace or create more than 10,000 square feet of impervious surfaces.

Sea Change San Mateo County (Sea Change SMC)

Sea Change SMC is an initiative to help the County of San Mateo and the cities within the County prepare for sea level rise. The initiative develops resources for cities to use in updating their general plans, policy documents, and risk assessments.

San Mateo County Local Hazard Mitigation Plan

San Mateo County's MJ-LHMP per the 2000 Disaster Mitigation Act (Public Law 106-390) was adopted in July 2016. It is an appendix to the County General Plan and consists of the plan developed by ABAG, a plan for unincorporated San Mateo County to reduce and mitigate risks from natural and human-induced hazards, and annexes from participating local governments

about how the County LHMP applies in their jurisdiction. The plan covers climate change, dam failure, drought, flood, severe weather, and tsunami events.

Belmont's current LHMP is an annex to the 2016 County of San Mateo LHMP. The annex identifies specific actions the City is taking to mitigate impacts from flooding and other emergency events, as well as climate change adaptation and resiliency strategies.

San Mateo County General Plan

The 1986 San Mateo County General Plan, which applies to unincorporated portions of the county, contains a Vegetative, Water, Fish, and Wildlife Resources chapter (Chapter 1) which includes a policy to develop guidelines for vegetation and debris control in riparian corridors to avoid flood hazards. The Plan also includes a Natural Hazards chapter (Chapter 15) that aims to reduce the potential risk of death, injury, property damage, and economic and social dislocation resulting from floods. Policies seek to minimize potential risks through education, information provision, and emergency preparedness; protect people and property from natural and man-made disasters; minimize exposure to geologic and seismic hazards; and provide adequate emergency evacuation and access. Until such time as the unincorporated Harbor Industrial Area (the area in Belmont's Sphere of Influence) is annexed, this area is subject to the San Mateo County General Plan and Zoning Regulations.

San Mateo County Zoning Regulations

Chapter 35.5 in the San Mateo County Zoning Regulations includes provisions for Flood Hazard Areas. Development in these areas is controlled to protect human life and health, minimize property damage, and protect water quality.

City of Belmont Buildings Ordinance

The City of Belmont has a buildings ordinance (Municipal Code Chapter 7, Article IX) that promotes public safety with provisions designed to minimize the need for flood control projects and damage to buildings and utilities due to flooding. The ordinance also ensures that potential buyers and occupiers of areas of special flood hazard are aware of the property's location in the hazardous area and assume responsibility for their occupation thereof. To accomplish these goals, the ordinance does the following:

- Requires a development permit to be obtained before any construction or other development begins within any area of special flood hazard;
- Restricts or prohibits uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- Requires that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Controls the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- Controls filling, grading, dredging, and other development which may increase flood damage; and

- Prevents or regulates the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

City of Belmont Wells Ordinance

The City of Belmont has a wells ordinance (Municipal Code Chapter 26) that prohibits wells from being constructed in areas that are subject to flooding.

City of Belmont Zoning Ordinance

The Belmont Zoning Ordinance, Section 4.7, establishes the Hillside Residential and Open Space (HRO) District, which addresses numerous risks to development on the city's hillsides. Objectives of the HRO District include minimizing flood hazards, runoff, and soil erosion incurred from development of hillsides, minimizing the alteration of drainage patterns. Reducing runoff and soil erosion from hillside development also reduces contaminants to surface water and therefore development impacts on water quality.

City of Belmont General Plan

The 1982 Belmont General Plan contains a Seismic Safety-Safety Element that considers flooding and emergency management. Policies seek to investigate and mitigate flood hazards, reduce exposure to flood hazards, and increase effectiveness of response to emergencies. The General Plan also contains a Conservation Element with policies that seek to protect streams and stream channels, drainage, and water quality.

4.8.2 Impact Analysis

SIGNIFICANCE CRITERIA

Implementation of the Proposed Project would have a potentially significant adverse impact if it would:

- Criterion 1:** Violate any federal, state, or local water quality standards or waste discharge requirements.
- Criterion 2:** Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of local groundwater tables.
- Criterion 3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or by increasing the rate or amount of surface runoff, in a manner that would result in substantial erosion, siltation, or flooding on- or off-site.
- Criterion 4:** Create or contribute runoff that would exceed the capacity of existing or planned storm drain systems, or that would provide substantial additional sources of polluted runoff.
- Criterion 5:** Otherwise substantially degrade water quality.

- Criterion 6:** Place housing within a 100-year flood hazard area on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Criterion 7:** Place within a 100-year flood hazard area structures which would impede or redirect flood waters.
- Criterion 8:** Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Criterion 9:** Expose people or structures to inundation by seiche, tsunami, or mudflow.

METHODOLOGY AND ASSUMPTIONS

Potential impacts resulting from implementation of the Proposed Project were evaluated based on relevant information from FEMA, San Mateo County, and the City of Belmont. Based on a review of relevant hydrology plans and maps, this Program EIR presents the potential for impacts to hydrology, water quality, and flooding to occur as a result of implementation of the Proposed Project. Programmatic impacts are discussed in broad, qualitative terms. This assessment does not satisfy the need for project-level California Environmental Quality Act (CEQA) analysis for individual projects.

IMPACT SUMMARY

Future development under the Proposed Project could result in impacts to water quality, hydrology, flooding, or other inundation hazards; however, federal, State, and local regulations, as well as policies in the Proposed Project would ensure that impacts of the Proposed Project would be less than significant. Compliance with the countywide SMCWPPP would ensure water quality standards are not violated and would ensure protection of water quality during construction and operation of future development within the city. In addition, the Proposed Project goals and policies would further reduce any potential impacts by ensuring compliance with the City's NPDES permit and reduction of stormwater runoff. Potential flooding impacts would be avoided through compliance with the City's Buildings Ordinance (Municipal Code Chapter 7, Article IX) and the Proposed Project goals and policies, which restrict or prohibit land uses considered unsafe in a floodplain. Moreover, the development contemplated by the proposed General Plan and BVSP may bring additional people and structures within flood plain boundaries; however, attracting people to an area with existing environmental risks does not, in and of itself, constitute a significant effect of the Proposed Project on the environment and therefore does not present a potential impact for purposes of analysis under CEQA unless the Proposed Project would exacerbate existing environmental hazards or conditions that already exist.¹⁰ Implementation of the Proposed Project would therefore result in less than significant impacts to hydrology, flooding, and water quality.

¹⁰ See *California Building Industry Association v. Bay Area Air Quality Management District (CBIA v. BAAQMD)* (2015) 62 Cal. 4th 369, 390.

IMPACTS AND MITIGATION MEASURES

Impact

4.8-1 Development under the Proposed Project would not violate any federal, State, or local water quality standards or waste discharge requirements. (*Less than Significant*)

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

The proposed General Plan and Phase I Zoning would have a significant environmental impact if it would violate water quality standards and waste discharge requirements set out in Municipal Permit Order No. R9-2015-0049, NPDES Permit No. CAS612008, issued by the San Francisco Bay RWQCB. Violation of these permits could occur if implementation of the General Plan and Phase I Zoning would substantially increase pollutant loading levels in the sanitary sewer system or in groundwater underlying the city, either directly through the introduction of pollutants generated by industrial land uses, or indirectly through stormwater pollution. As NPDES Permit CAS612008 is based on the federal CWA, compliance with the Porter–Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable state and federal regulations, all applicable provisions of statewide water quality control plans and policies adopted by the SWRCB, the Basin Plan adopted by the RWQCB, the California Toxics Rule, the California Toxics Rule Implementation Plan, and NPDES would ensure compliance with other applicable plans and regulations pertaining to water quality.

The proposed General Plan and Phase I Zoning would allow for additional development within the city that would increase the amount of impervious surfaces and could therefore increase the amount of runoff and associated pollutants during both construction and operation. However, as described in the Regulatory Setting section above, the County’s SMCWPPP requires every construction activity within Belmont that has the potential to negatively affect water quality to comply with the NPDES Stormwater Discharge Permit, which limits the severity of any potential environmental effects caused by developments associated with the proposed General Plan and Phase I Zoning.

Furthermore, the General Plan contains goals and policies pertaining to water quality, as listed below. Policy 6.2-9 requires the City to continue to comply with the Municipal Regional Stormwater Permit requirements, and Policy 6.2-10 requires compliance with the federal CWA, both of which define standards for water quality and impose requirements that will also contribute to limiting the severity of any potential environmental effects caused by developments associated with the proposed General Plan and Phase I Zoning. In addition, Policy 5.5-3 requires development projects to incorporate BMPs consistent with the NPDES permit guidelines to insure that new construction is required to reduce its contribution of water pollutants to less than significant levels. Section 7A of the Phase I Zoning regulations includes provisions for surface parking lot design that minimizes stormwater runoff and requires runoff to be able to be directed into landscaped areas, which will use natural filtration to improve water quality and reduce runoff. Implementation of these practices would reduce the volume of runoff from impervious surfaces and increase the amount of natural filtration of pollutants from stormwater occurring on site, generally improving the quality of stormwater before it enters the city’s stormwater system.

Based on implementation of the proposed General Plan policies, the impacts of the General Plan, Phase I Zoning, and CAP are less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area, and will contribute to limiting potential environmental impacts associated with implementation of the BVSP. In addition, the BVSP includes policies that further reduce the potential impact within the BVSP Area. BVSP Policy 5.1-3 requires the City to ensure that development projects in the BVSP Area comply with the requirements of the Municipal Regional Stormwater NPDES Permit. In the Village Zoning, Section 31.6.4, Design Standards for Parking Lots and Structures, requires management of stormwater runoff such that it flows through landscaped areas in surface parking lots. As with the proposed General Plan and Phase I Zoning regulations, these BVSP policies will reduce the volume of runoff from impervious surfaces and increase the amount of natural filtration of pollutants from stormwater occurring on site, generally improving the quality of stormwater before it enters the city's stormwater system.

Therefore, as a result of implementation of the policies of the proposed General Plan and BVSP, as described above and listed below, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Conservation Element

- 5.5-3 Require development projects to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.

Safety Element

- 6.2-9 Continue to comply with the Municipal Regional Stormwater Permit requirements for municipal authorities to address water quality and flow-related impacts of stormwater runoff; continue to enforce NPDES permits in Belmont; and continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
- 6.2-10 Comply with Section 402(p) of the federal Clean Water Act, as amended by the Water Quality Act of 1987, which requires NPDES permits for stormwater discharges from municipal storm sewer systems, stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Infrastructure and Public Services Chapter

- 5.1-3 Ensure that development projects in the Planning Area comply with the requirements of the Municipal Regional Stormwater NPDES Permit.

Proposed Climate Action Plan Measures that Would Reduce the Impact

There are no strategies in the Climate Action Plan that relate to this topic.

Mitigation Measures

None required.

Impact

4.8-2 Development under the Proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of local groundwater tables. (*Less than Significant*)

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

As described in the Environmental Setting section above, the Planning Area is located in the Santa Clara Valley Groundwater Basin, San Mateo Subbasin. The groundwater in this basin is not considered a good source of irrigation or municipal water use due to the high content of chloride, sulfate, and total dissolved solids. The proposed General Plan and Phase I Zoning would allow for additional development within the Planning Area that could increase demands for water; however, this increase in water demand would not impact local groundwater supplies as the primary purveyor of water for the city is the MPWD, which currently does not utilize any local groundwater or surface water supplies to serve the city, and as discussed in Section 4.13 of this EIR, “Utilities,” MPWD has sufficient water supply to meet current and projected demands.

In addition, development anticipated in the General Plan and Phase I Zoning may increase the amount of impervious surfaces. The proposed General Plan policies listed below would help to preserve permeable surfaces in the Planning Area, which help recharge groundwater supplies. Policy 5.9-2 in the General Plan requires the City to encourage site design measure that facilitate groundwater recharge, and Policy 5.3-5 requires new construction to use best practices to preserve permeable surfaces. Policy 4.4-1 and 4.4-3 protect open space lands to allow for groundwater recharge. Similarly, the Phase I Zoning protects open space areas with the continuation of the Hillside Residential and Open Space and Open Space Public zoning districts, and the addition of the Open Space Privately-Owned district. These zoning districts preserve permeable surfaces from development, which will facilitate groundwater recharge.

The CAP does not have elements that are distinct from the overall Proposed Project as it relates to this impact.

As a result of implementation of existing local regulations, the policies of the proposed General Plan, and regulations in the Phase I Zoning, the impact of the General Plan, Phase I Zoning, and CAP would be less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area and will contribute to limiting potential environmental impacts associated with implementation of the BVSP. In addition, BVSP Policy 5.1-7 requires development in the BVSP to include low impact development features to increase on-site infiltration, which will further contribute to groundwater recharge opportunities in connection with new development in the BVSP Area.

As a result of implementation of existing local regulations, the policies of the proposed General Plan, and regulations in the Phase I Zoning, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Parks, Recreation, and Open Space Element

- 4.4-1 Continue to designate and protect open space lands for the preservation of scenic areas, natural drainage ways, and plant and wildlife habitats; for outdoor recreation; and for public health and safety.
- 4.4-3 Consistent with the San Juan Hills and Western Hills area plans, cluster development in the hillside areas of western Belmont in order to maintain contiguous habitat areas, minimize grading, and limit exposure to steep slopes and other sensitive areas.

Conservation Element

- 5.3-5 In design and construction, require use of best practices that preserve natural resources, such as soil, trees, native plants, and permeable surfaces.
- 5.9-2 Encourage development projects of all sizes to incorporate site design measures that facilitate groundwater recharge and natural hydrological processes, allowing stormwater to infiltrate the ground on-site and/or be collected for reuse in landscaping and designated to on-site stormwater detention facilities. Such measures may include:
- Canopy trees or shrubs to absorb rainwater;
 - Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
 - Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
 - Installation of green roofs on buildings;
 - Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
 - On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and
 - Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Infrastructure and Public Services Chapter

- 5.1-7 Require development in the Belmont Village Planning Area to include low impact development features to reduce stormwater pollutant loads and increase on-site infiltration.

Proposed Climate Action Plan Measures that Would Reduce the Impact

There are no strategies in the Climate Action Plan that relate to this topic.

Mitigation Measures

None required.

Impact

- 4.8-3 Development under the Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or by increasing the rate or amount of surface runoff, in a manner that would result in substantial erosion, siltation, or flooding on- or off-site. (*Less than Significant*)**

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

Implementation of the proposed General Plan and Phase I Zoning would not involve the direct alteration of existing streams, rivers, or other drainage patterns. However, future development/redevelopment allowed under the proposed General Plan and Phase I Zoning could impact the existing drainage system. Increases to impervious surfaces in connection with new development, such as roofs, patios, driveways, and parking areas could lead to increased stormwater flow and runoff into the local storm drains and creeks in the Planning Area, which could result in hydromodification effects to the creek systems within the Planning Area. However, a large share of the development that may occur in the Planning Area would be in the BVSP Area. As shown in Tables 3-5 and 3-9 in Chapter 3 of this EIR, "Project Description," the Planning Area is expected to add 1,500 households under buildout of the proposed General Plan, and the BVSP Area is anticipated to add 560 housing units under buildout of the BVSP. Assuming a one-to-one relationship between households and housing units, the BVSP Area will account for approximately 37 percent of new housing in the Planning Area under buildout of the Proposed Project. As discussed below, the BVSP Area is built out, and consequently, new development would involve the redevelopment of areas with existing impervious surfaces. Therefore, changes to the existing drainage system are expected to be limited.

Furthermore, the City recognizes the importance of water quality and preventing hydromodification. As described above, any development that would occur under the Proposed Project would be subject to the erosion and runoff control provisions contained in the county's SMCWPPP, as well as NPDES Stormwater Discharge Permit process.

In addition, development occurring during buildout of the General Plan and Phase I Zoning in special flood hazard areas would also be required to comply with flood damage prevention measures contained in Chapter 7, Article IX of Belmont's Municipal Code. Special flood hazard areas in Belmont are defined as areas in the floodplain subject to a one percent or greater percent chance of flooding in any given year. The measures in Article IX include:

- Prevent excavation and site grading during the winter rain period;
- Require a development permit for all construction to ensure certain criteria are met, including that the site is reasonably safe from flooding and that the development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated; and

- Establish standards of construction related to anchoring, construction materials and methods, and elevation and floodproofing.

Adherence to Article IX of the Municipal Code would prevent development under the General Plan and Phase I Zoning from altering the special flood hazard area in a manner that would significantly increase the rate or amount of either runoff or erosion, thereby causing on- or off-site flooding.

In addition, policies in the General Plan are intended to preserve natural watercourses or naturalized drainage channels, and to ensure future development incorporates BMPs to reduce runoff from a site. Policies 3.4-6 and 6.1-11 reduce the potential for erosion, which will help to preserve the existing drainage pattern within the Planning Area; Policies 4.4-1, 4.4-3, and 5.9-2 help protect open spaces areas from new development, which in turn will protect against increased rates of surface runoff within the Planning Area; Policies 4.5-2, 5.3-2, 5.4-1, 5.4-2, 5.4-3, and 5.4-4 address the maintenance and restoration of Belmont Creek and other waterways, thereby preventing alteration of the course of a stream or river in connection with future development permitted under the proposed General Plan or Phase I Zoning; and Policy 5.9-1 requires the City to continue to make improvements to the drainage system to improve drainage in areas that are currently underserved.

The CAP does not have elements that are distinct from the overall Proposed Project as it relates to this impact.

Based on implementation of existing local regulations and policies of the proposed General Plan, the impacts of the General Plan, Phase I Zoning, and CAP are less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

Any development that may result from the BVSP and the associated zoning regulations would occur on sites with existing impervious surfaces—there is no greenfield, or open space, in the BVSP Area that is available for development. In addition, the BVSP includes Urban Design guidelines and policies that reduce potential impacts. The Urban Design Chapter of the BVSP includes design guidelines that encourage, to the extent feasible, low impact development that mimics natural watershed processes by replicating pre-urban development hydrologic conditions, typically by directing stormwater runoff to natural vegetated systems, such as landscaped planter swales, and gardens that reduce, filter, or slow the runoff before it makes its way into the storm drainage system. BVSP Policies 5.1-5 and 6.1-1 require the City to design streetscapes and storm drainage, respectively, to minimize erosion; Policies 4.5-2, 6.2-2 and 6.3-2 protect and enhance the ecological health of Belmont Creek; and Policies 5.1-3 and 5.1-7 ensure consistency requirements of the Municipal Regional Stormwater NPDES Permit and require low impact development features in development in the BVSP Area, as discussed above in Impact 4.8-1. In the Village Zoning, Section 31.6.4, Design Standards for Parking Lots and Structures, requires management of stormwater runoff such that it flows through landscaped areas in surface parking lots. In addition, the General Plan policies discussed above apply within the BVSP Area, which will further help minimize any potential impacts from the Proposed Project.

Therefore, as a result of implementation of the policies of the proposed General Plan and the BVSP, and existing state and local regulations as described above and listed below, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Circulation Element

- 3.4-6 Locate, design, and landscape new roadways to preserve the beauty of the area, prevent erosion, and help shield residents from noise and air pollution. To the extent possible, retain trees and vegetative cover and minimize grading.

Parks, Recreation, and Open Space Element

- 4.5-2 Protect Belmont Creek from future encroachment through regulation, development review, conservation easements, or other appropriate actions.

In addition, Policies 4.4-1 and 4.4-3, as listed under Impact 4.8-2 above.

Conservation Element

- 5.3-2 Continue to maintain, protect, restore, and enhance Belmont's ecologically important areas and seek to reduce impacts on them, including the creek corridors, the open space, and the wetlands around O'Neill Slough.
- 5.4-1 Restore Belmont Creek to enhance ecological functions, biological resources, hydrology function, and flood control.
- 5.4-2 Preserve, where possible, natural watercourses or provide naturalized drainage channels within the city. Where necessary and feasible, implement restoration and rehabilitation measures.
- 5.4-3 Protect, restore, and enhance a continuous corridor of native riparian vegetation and wildlife habitat along Belmont's waterways, water bodies, and wetlands.
- 5.4-4 Preserve and enhance the natural riparian environment along waterway corridors, including Belmont Creek, by minimizing environmental and visual impacts.
- 5.5-4 Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality.
- 5.9-1 Continue to make improvements and upgrades to the drainage system. Priorities should be to provide curbs and gutters to underserved areas (as feasible), improve facilities in areas that are subject to seasonal flooding, increase capacity of the system, and replace damaged lines in the storm drain system.

In addition, Policy 5.9-2, as listed under Impact 4.8-2 above.

Safety Element

- 6.1-11 Support erosion prevention of hillside areas at risk of landslide, as identified in [Draft General Plan] Figure 6-1, by revegetation or other acceptable methods.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Urban Design Chapter

See above discussion in the Impact Summary.

Infrastructure and Public Services Chapter

- 5.1-5 Design new streetscape and landscaped areas for stormwater management and the efficient use and conservation of water.

In addition, Policy 5.1-3, as listed in Impact 4.8-1, and Policy 5.1-7, as listed under Impact 4.8-2.

Environmental Sustainability, Health, and Safety Chapter

- 6.1-1 Design storm drainage and flood control structures to minimize erosion and creek sedimentation and to preserve and enhance the wildlife habitat and vegetation of Belmont Creek.
- 6.2-2 Continue to collaborate on and implement efforts to restore Belmont Creek and enhance ecological functions, biological resources, hydrology function, and flood control.
- 6.3-2 Maintain the Belmont Creek corridor west of Sixth Avenue as a functional wildlife corridor and habitat linkage. Provide an appropriate buffer, using landscaping, to preserve and protect the creek water quality. Where feasible, allow public access in the form of open space or a multi-use trail along the creek corridor. Incorporate interpretive signage for educational purposes in public access areas along the creek and in Twin Pines Park.

Proposed Climate Action Plan Measures that Would Reduce the Impact

There are no strategies in the Climate Action Plan that relate to this topic.

Mitigation Measures

None required.

Impact

- 4.8-4 Development under the Proposed Project would not create or contribute runoff that would exceed the capacity of existing or planned storm drain systems, or that would provide substantial additional sources of polluted runoff. (*Less than Significant*)**

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

Implementation of the proposed General Plan and Phase I Zoning would not involve the direct alteration of existing streams, rivers, or other drainage patterns. However, future development/redevelopment allowed under the Proposed Project could impact the existing drainage system. Increases to impervious surfaces in connection with new development, such as roofs, patios, driveways, and parking areas would lead to increased stormwater flow, though such

impacts would be minimal, because the majority of new development would consist mostly of redevelopment on sites with existing impervious surfaces.

As described under Impact 4.8-1, the county's SMCWPPP ensures compliance with NPDES permit requirements, as well as with applicable state and federal laws. Additionally, every construction activity within the Planning Area that has the potential to negatively affect water quality must prepare a construction SWPPP. Projects that would result in the disturbance of one acre or more of impervious surface or would create more than 10,000 square feet of impervious surfaces are subject to the NPDES Stormwater Discharge Permit and stormwater pollution prevention requirements. Compliance with the NPDES requirements would ensure that development under the Proposed Project would not create or contribute runoff that would exceed the capacity of existing or planned storm drain systems or provide substantial additional sources of polluted runoff.

Furthermore, in addition to the policies and zoning regulations already discussed in Impacts 4.8-1, 4.8-2, and 4.8-3 above that promote the protection of the city's natural water bodies, require incorporation of BMPs, and otherwise ensure compliance with the City's NPDES Permit and other related regulations, the proposed General Plan contains policies pertaining to storm drain systems. Policy 5.9-1 requires the City to continue to upgrade the drainage system, and Policy 6.2-3 requires all new drainage facilities to comply with the city's storm drainage facility requirements, which also would make sure that new development does not exceed the capacity of existing or planned storm drain systems.

The Phase I Zoning provides surface parking design standards that maximize permeability through use of pervious pavements, sand-set pavers, and supported turf systems.

Overall, the Proposed Project goals and policies would promote improved water quality in the city and continued compliance with federal, State, and local water quality regulations, and would ensure that water quality is protected to the maximum extent practicable.

The CAP does not have elements that are distinct from the overall Proposed Project as it relates to this impact.

Compliance with the City's current regulations and the General Plan policies discussed above and listed below would ensure that the runoff as a result of future development under the Proposed Project would not exceed the capacity of existing or planned storm drain systems or generate substantial pollutant runoff. Therefore, impacts would be less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area, and will contribute to limiting potential environmental impacts associated with implementation of the BVSP. In addition, as discussed above in Impact 4.8-3, the Urban Design guidelines encourage Low Impact Development and BVSP Policy 5.1-5 requires streetscape and landscape designs to manage stormwater, which would further regulate development to ensure that runoff potential does not exceed the storm drain system's capacity. In addition, BVSP Policy 5.1-6 requires the City to upgrade the storm drain system in accordance with the Storm Drainage Master Plan. Similar to the

Phase I Zoning, the Village Zoning also provides surface parking design standards that maximize permeability through use of pervious pavements, sand-set pavers, and supported turf systems.

As a result of implementation of existing federal, State and local regulation, and the policies of the proposed General Plan and BVSP, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Conservation Element

Policy 5.9-1, as listed under Impact 4.8-3 above.

Safety Element

- 6.2-3 Require all proposed drainage facilities to comply with the city's storm drainage facility requirements to ensure they are properly sized to handle 100-year flood conditions.

Proposed Phase I Zoning Regulations that Would Reduce the Impact

Design Standards for Off-street Parking and Loading in Commercial Mixed Use and Regional Commercial Districts

Surface. All outdoor parking spaces, driveways, and maneuvering areas shall be designed, built and permanently maintained to avoid dust, mud and standing water and to maximize permeability, where feasible and appropriate. These surfaces may include traditional asphalt and concrete as well as pervious pavements, sand-set pavers, and supported turf systems. A combination of surfaces may be used; for example, two track driveways of concrete strips with pervious areas between the strips and on the edges.

- **Cross-grades.** Cross-grades shall be designed for slower stormwater flow and to direct stormwater toward landscaping, bio-retention areas, or other water collection/treatment areas.
- **Landscaping Alternative.** Up to two feet of the front of a parking space as measured from a line parallel to the direction of the bumper of a vehicle using the space may be landscaped with ground cover plants instead of paving.
- **Permeable Paving.** Permeable paving, sand-set pavers, supported turf systems, and vegetation shall be used in all overflow parking areas and installed in accordance with manufacturer recommended specifications.
- **Turf Grids/Grassy Pavers.** Turf grids/grassy pavers shall be installed in areas of low traffic or infrequent use wherever feasible.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Urban Design Chapter

As discussed under Impact 4.8-3 above, the Urban Design Chapter of the BVSP includes design guidelines that encourage Low Impact Development that mimics natural watershed processes and would reduce stormwater runoff impacts.

Infrastructure and Public Services Chapter

5.1-6 Continue to make improvements and upgrades to the storm drain system in accordance with the Storm Drainage Master Plan, including:

- Improvements to El Camino Real pipelines;
- Improvements to Hiller Street pipelines; and,
- Improvements to Belmont Creek box culvert and flap gate.

In addition, Policy 5.1-5 , as listed under Impact 4.8-3 above.

Village Zoning

The design standards for parking lots and structures, similar to those of the Phase I Zoning, specify that surface parking shall be designed, built and permanently maintained to maximize permeability, where feasible and appropriate, through use of pervious pavements, sand-set pavers, and supported turf systems.

Proposed Climate Action Plan Measures that Would Reduce the Impact

There are no strategies in the Climate Action Plan that relate to this topic.

Mitigation Measures

None required.

Impact

4.8-5 Development under the Proposed Project would not otherwise substantially degrade water quality. (*Less than Significant*)

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

As described under Impact 4.8-1, the proposed General Plan and Phase I Zoning would allow for new development that could potentially degrade water quality; however, development would be subject to the county's SMCWPPP, as described above. Furthermore, the General Plan contains goals and policies pertaining to water quality. Policy 5.5-1 requires the City to continue to participate in a local water pollution prevention program; Policy 5.5-2 requires the City to encourage residents and businesses to use best management practices (BMPs) to reduce water pollution; Policy 5.5-4 ensures that new infrastructure design and construction incorporates BMPs; Policy 5.5-5 requires the City to implement water pollution prevention methods; and as discussed in Impact 4.8-1, Policy 5.5-3 requires projects to incorporate BMPs to reduce projected increases in pollutant loads.

The CAP does not have elements that are distinct from the overall Proposed Project as it relates to this impact.

As a result of implementation of existing federal, State and local regulations and the proposed General Plan policies as described above, the impact of the General Plan, Phase I Zoning, and CAP would be less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area, and will contribute to limiting potential environmental impacts associated with implementation of the BVSP. In addition, BVSP Policy 6.4-1 requires remediation of contaminated sites where groundwater quality has been impacted, which will improve water quality within the BVSP Area.

As a result of implementation of the policies of the proposed General Plan, and existing federal, State and local regulations as described above, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Conservation Element

- 5.5-1 Continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
- 5.5-2 Encourage residents and businesses to use best management practices (BMPs) to reduce water pollutant loads that result from daily activities, such as using landscaping chemicals and fertilizers and repairing and washing cars outdoors.
- 5.5-4 Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality.
- 5.5-5 Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment.

In addition, Policy 5.5-3, as listed under Impact 4.8-1.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Environmental Sustainability, Health, and Safety Chapter

- 6.4-1 Require remediation and cleanup of any contaminated sites in the Belmont Village Planning Area to levels required for the proposed new land use, where hazardous materials have impacted soil, surface water, or groundwater. Remediation and cleanup will be in compliance with federal and State standards. Documentation of the site investigation and cleanup must be provided to City staff during development project review.

Proposed Climate Action Plan Measures that Would Reduce the Impact

There are no strategies in the Climate Action Plan that relate to this topic.

Mitigation Measures

None required.

Impact

4.8-6 Development under the Proposed Project would not place housing within a 100-year flood hazard area on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. (*Less than Significant*)

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

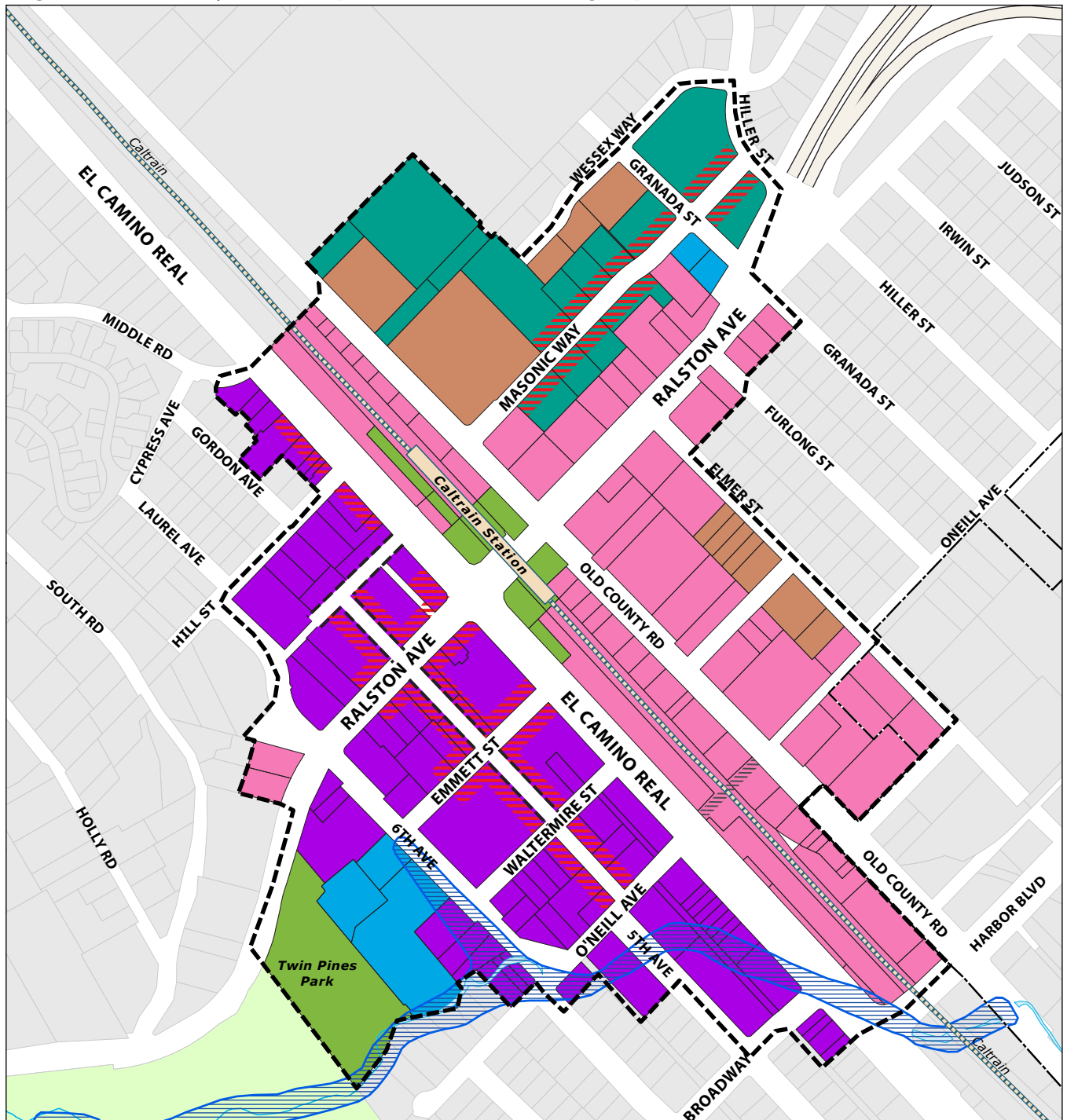
The proposed General Plan and Phase I Zoning would allow for additional residential development within the Planning Area, including on vacant sites south of Ralston Avenue between Alameda de las Pulgas and Chula Vista Drive. However, Belmont requires a special use permit for any development proposed in areas of special flood hazards, as defined as the 100-year flood hazard area (Municipal Code Chapter 7, Article IX). The ordinance also restricts or prohibits land uses considered unsafe in a floodplain and establishes the required elevation of the lowest floor of residential uses relative to the base flood elevation for each type of flood zone. Moreover, developing in flood hazard areas is not an environmental impact for CEQA purposes in and of itself; the Proposed Project's impact would only be significant if the Proposed Project exacerbates existing environmental hazards or conditions that already exist.

The proposed General Plan policies listed below would impose limitations on future development to ensure that the Proposed Project does not exacerbate any of the existing 100-year flood hazard areas. Policy 6.2-5 requires installation of protective structures to protect development from the effects of flooding in the 100-year Flood Zone; Policy 6.2-7 requires the City to comply with FEMA requirements to control development within flood hazard areas; and Policy 6.2-8 requires the City to periodically review FEMA and State Department of Water Resources maps of areas subject to flooding. In addition, Policy 6.2-1 requires the City to continue to pursue flood control programs.

While the CAP does not mandate any measures that relate to this topic, Appendix D of the CAP offers a selection of several possible adaptation measures to address sea level rise and increased flooding events.

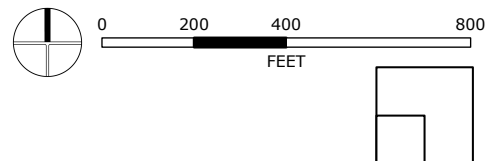
As a result of implementation of the policies of the proposed General Plan, and existing federal, State and local regulations, the impact of the General Plan, Phase I Zoning, and CAP would be less than significant.

Figure 4.8-2: 100-year Floodplain in Belmont Village Specific Plan Area



- Village Core
- Station Core
- Village Corridor Mixed Use
- Village High Density Residential
- Public Facility
- Park/Plaza
- Active Use Frontage Overlay
- Proposed Bicycle/Pedestrian Underpass

- Caltrain
- Proposed New Rights-of-Ways
- Waterways/Lakes
- 100-year Flood Zone (FEMA Zone A)
- Belmont Village Planning Area
- City of Belmont



Source: FEMA, 2016; City of Belmont, 2014; San Mateo County Assessor's Parcel Database, 2014

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Impact of Belmont Village Specific Plan and Village Zoning

The BVSP and associated zoning regulations would allow for residential development within the BVSP Area where such development was previously not, including on nine Village Core parcels that are in the 100-year flood hazard area of Belmont Creek. These parcels are located between 6th Avenue and El Camino Real and between O'Neill Avenue and Broadway. This area is currently designated for commercial and retail use. Under the BVSP and Village Zoning, multi-family residential uses could be permitted on these parcels.

The General Plan policies and local regulations discussed above apply within the BVSP Area. Additionally, BVSP Policy 6.2-1 requires the City to ensure that new projects within the 100-year Flood Zone are designed to reduce flood risk.

As a result of implementation of the policies of the proposed General Plan, and existing federal, State and local regulations, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Safety Element

- 6.2-5 Require installation of protective structures or other design measures to protect proposed building and development sites from the effects of flooding in 100-year Flood Zones.
- 6.2-7 Comply with Federal Emergency Management Agency (FEMA) requirements to identify flood hazard areas and control development within these areas in order for residents to qualify for federal flood insurance.
- 6.2-8 Periodically review maps prepared by FEMA and the State Department of Water Resources to identify changes in mapping of areas subject to flooding and amend the General Plan or Municipal Code as warranted.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Environmental Sustainability, Health, and Safety Chapter

- 6.2-1 Ensure new projects within the 100-year Flood Zone are designed to reduce flood risk. Strategies include site planning to minimize flood risk and applying flood safe standards to new construction.

Proposed Climate Action Plan Measures that Would Reduce the Impact

While the Climate Action Plan does not mandate any measures that relate to this topic, Appendix D of the Climate Action Plan offers a selection of several possible adaptation measures to address sea level rise and increased flooding events.

Mitigation Measures

None required.

Impact

4.8-7 Development under the Proposed Project would not place within a 100-year flood hazard area structures which would impede or redirect flood waters. (*Less than Significant*)

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

As described under Impact 4.8-6, the proposed General Plan and Phase I Zoning would allow for additional residential development within a 100-year flood hazard area of the Belmont Creek. However, Belmont requires a special use permit for any development proposed in areas of special flood hazards and areas of flood-related erosion hazards (Municipal Code Chapter 7, Article IX). The ordinance also restricts or prohibits land uses considered unsafe in a floodplain. Proposed grading and drainage improvements are analyzed to ensure that drainage is not diverted from its natural drainage basin to another basin that was not designed to take that additional flow. In addition, General Plan Policy 6.2-5, as discussed in Impact 4.8-6, would reduce potential impact by requiring protective structures around development in the 100-year Flood Zone. In addition, Policy 6.2-11 prevents critical public facilities from locating within the 100-year Flood Zone, and Policy 6.2-13 requires the City to implement the City's Local Hazard Mitigation Plan and CAP adaptation strategies that promote resiliency to flooding.

While the CAP does not mandate any measures that relate to this topic, as discussed under Impact 4.8-6, Appendix D of the CAP offers a selection of several possible adaptation measures to address sea level rise and increased flooding events.

As a result of implementation of existing federal, State, and local regulations and the policies of the proposed General Plan, the impact of the General Plan, Phase I Zoning, and CAP would be less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area, and will contribute to limiting potential environmental impacts associated with implementation of the BVSP. In addition, BVSP Policy 6.2-1 requires the City to ensure that new projects within the 100-year Flood Zone are designed to reduce flood risk, as discussed in Impact 4.8-6.

As a result of implementation of the policies of the proposed General Plan, and existing federal, State and local regulations, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Safety Element

- 6.2-11 Site critical public facilities, including hospital and healthcare facilities; emergency shelters; police and fire stations; and emergency communications facilities outside of the 100-year Flood Zones.

- 6.2-13 Support and implement the City's Local Hazard Mitigation Plan and Climate Action Plan's adaptation strategies and measures that promote resiliency to sea level rise and increased flooding as a result of climate change.

In addition, Policy 6.2-5, as listed under Impact 4.8-6 above.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Environmental Sustainability, Health, and Safety Chapter

Policy 6.2-1, as listed under Impact 4.8-6 above.

Proposed Climate Action Plan Measures that Would Reduce the Impact

Appendix D of the Climate Action Plan offers a selection of several possible adaptation measures to address sea level rise and increased flooding events, as discussed under Impact 4.8-6 above.

Mitigation Measures

None required.

Impact

- 4.8-8 Development under the Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. (*Less than Significant*)**

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

As described under Impacts 4.8-6 and 4.8-7 above, implementation of the Proposed Project is not anticipated to result in any significant impacts in terms of placing structures within a 100-year flood hazard area. However, there are two dams located within or adjacent to the Planning Area: the Crystal Springs Dam and the Notre Dame Dam. Both dams have been assigned high hazard ratings and have emergency action plans in place. These dams are periodically inspected by the State of California Division of Dam Safety.

Dam failure is considered a low-probability event, caused most often by age, poor design, or structural damage resulting from earthquake or flood. With continued evaluation of dam stability and continued compliance with state regulations, impacts associated with flooding due to dam failure are not anticipated.

Additionally, the City of Belmont requires a special use permit for any development proposed in areas of special flood hazards and areas of flood-related erosion hazards (Municipal Code Chapter 7, Article IX). The ordinance also restricts or prohibits land uses considered unsafe in a floodplain. As described under Impact 4.8-6, the proposed General Plan and Phase I Zoning would allow for greater and higher intensity residential development within a 100-year flood hazard area of the Belmont Creek, as identified in Figure 4.8-1. However, compliance with City regulations pertaining to development within flood hazard areas would reduce potential impacts related to this development. Moreover, permitting new development that exposes people or structures is not an environmental impact for CEQA purposes in and of itself; the Proposed Project's impact would

only be significant if the Proposed Project exacerbates existing environmental hazards or conditions that already exist.

Policies in the proposed General Plan would prevent future development from exacerbating existing risks. Policies 2.21-3 and 6.2-1 support flood control programs; Policies 6.2-4 and 6.2-12 reduce flood hazards; policies 6.2-2 and 6.2-6 both improve the safety from dam inundation; Policy 5.11-3 requires the City to support implementation of the CAP which will help the City adapt to climate change impacts such as increased flooding; and Policy 6.1-1 requires the City to generally continue to enforce safety standards for new development.

While the CAP does not mandate any measures that relate to this topic, as discussed under Impact 4.8-6, Appendix D of the Climate Action Plan offers a selection of several possible adaptation measures to address sea level rise and increased flooding events. Additionally, GHG emission reductions due to the CAP would reduce contributions to future sea level rise and thus help reduce the exposure of people or structures to flooding.

As a result of implementation of existing local regulations and the policies of the proposed General Plan and CAP, the impact of the General Plan, Phase I Zoning, and CAP would be less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area, and will contribute to limiting potential environmental impacts associated with implementation of the BVSP. In addition, BVSP Policy 5.1-8 requires creekside open space improvements to enhance flood control; and, as discussed in Impact 4.8-6, Policy 6.2-1 requires new projects in the 100-year Flood Zone to be designed to reduce flood risk.

As a result of implementation of the policies of the proposed General Plan, and existing federal, State and local regulations as described above, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Land Use Element

2.21-3 Support infrastructure improvements and efforts to improve flood control in the HIA.

Conservation Element

5.11-3 Support and implement the Climate Action Plan's adaptation strategies and measures that promote resiliency to climate change impacts, such as sea level rise, extreme heat events, regional drought, and increased flooding.

Safety Element

6.1-1 Continue to maintain and enforce appropriate standards to ensure new development is designed to meet current safety codes and requirements associated with seismic activity. Require public and private development to be located, designed, and constructed to minimize the risk of loss of life and injury in the event of a major earthquake or other natural disaster.

- 6.2-1 Continue to pursue and implement flood control programs that reduce flood hazards, such as the City's Grading Ordinance and Flood Plain Management Ordinance.
- 6.2-2 Cooperate and coordinate with federal, State, and local jurisdictions and agencies involved in the mitigation of flood hazards from dam inundation, sea level rise, and major flood events.
- 6.2-4 Seek to reduce flooding hazards by continuing to implement improvements and upgrades to the storm drainage system.
- 6.2-6 Comply with all requirements of the California Department of Water Resources' Division of Safety of Dams to ensure adequate flood control for Notre Dame Dam.
- 6.2-12 Continue to collaborate with regional stakeholders and agencies to identify and implement a long-term approach to address ongoing flooding issues, maintenance, and creek improvements for Belmont Creek, particularly in the lower portions of the creek.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

Infrastructure and Public Services Chapter

- 5.1-8 Design creekside open space improvements to enhance flood control, to reduce flooding within the public right-of-way and near open space amenities.

Environmental Sustainability, Health, and Safety Chapter

In addition, Policy 6.2-1, as listed under Impact 4.8-6 above.

Proposed Climate Action Plan Measures that Would Reduce the Impact

Appendix D of the Climate Action Plan offers a selection of several possible adaptation measures to address sea level rise and increased flooding events, as discussed under Impact 4.8-6 above.

As discussed above, GHG emissions reductions due to all CAP measures reduce sea level rise.

Mitigation Measures

None required.

Impact

4.8-9 Development under the Proposed Project would not expose people or structures to inundation by seiche, tsunami, or mudflow. (*Less than Significant*)

Impact of Proposed General Plan, Phase I Zoning, and Climate Action Plan

As discussed in the Physical Setting section above, the County of San Mateo maps zones of high risk for tsunami inundation for coastal areas throughout the county. According to the San Mateo Quadrangle from June 15, 2009, no regions in the Planning Area are at risk for tsunami inundation. Therefore, there are no impacts associated with tsunamis.

Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water (such as the San Francisco Bay) caused by sustained high winds or an earthquake. While the eastern portion of the Planning Area approaches the San Francisco Bay, the severity of seiche energy

should be decreased upon reaching the developed portions of the Planning Area due to the wetlands, Foster City land, and Redwood City land that serve as a buffer. This buffer leads to a less than significant impact in regards to seiche inundation. Potential effects from seiches include flooding damage and related hazards in surrounding areas from spilling or sloshing waves, as well as increased pressure on containment structures. As discussed under Impact 4.8-8 above, both Crystal Springs Reservoir and the Notre Dame dam have emergency action plans.

Mudflow, also known as a landslide or mudslide, is a flow of dirt and debris that occurs after intense rainfall or earthquakes. The speed of the mudflow is dependent on the amount of precipitation, steepness of slope, and vibration of the ground. Potential impacts of the Proposed Project related to mudflow are reduced by California Building Code design provisions, geotechnical investigation requirements, and regulations in the Hillside Preservation District, as discussed under Impacts 4.5-1 and 4.5-3 in Section 4.5 of this EIR, "Geology, Soils, and Seismicity." In addition, Article IX, Section 7 of the Belmont Municipal Code requires permits for proposed construction in a mudslide area to determine that the proposed development is reasonably safe from mudslide hazards.

Policies in the proposed General Plan further reduce the potential impact. Policy 6.1-2 requires the City to regulate development to ensure mitigation of safety hazards on sites with a threat of landslides; Policy 6.1-3 prohibits development in areas at risk of landslides; Policy 6.1-5 requires geotechnical studies to identify hazards and mitigation measures; and Policy 6.1-9 requires real estate transactions to declare suspected geologic hazards. Moreover, permitting new development that exposes people or structures is not an environmental impact for CEQA purposes in and of itself; the Proposed Project's impact would only be significant if the Proposed Project exacerbates existing environmental hazards or conditions that already exist.

The Phase I Zoning and CAP do not have elements that are distinct from the overall Proposed Project as it relates to this impact.

As a result of implementation of existing local regulations and the policies of the proposed General Plan, the impact of the General Plan, Phase I Zoning, and CAP would be less than significant.

Impact of Belmont Village Specific Plan and Village Zoning

The General Plan policies discussed above apply within the BVSP Area, and the BVSP and the associated zoning regulations do not have elements that are distinct from the overall Proposed Project as it relates to this impact.

As a result of implementation of the policies of the proposed General Plan, and existing federal, State and local regulations as described above, the impact of the BVSP and associated zoning regulations would be less than significant.

Proposed General Plan Policies that Would Reduce the Impact

Safety Element

- 6.1-2 Continue to regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards on sites having a history or threat of seismic dangers, erosion, landslides, or shrink swell.

- 6.1-3 Prohibit development in areas at risk of landslides or high or very high liquefaction as shown in [Draft General Plan] Figure 6-1, or on slopes steeper than 30 percent, unless detailed site investigations ensure that risks can be reduced to acceptable levels and the structure will be protected for its expected life.
- 6.1-5 Geotechnical studies shall identify any geologic hazards affecting the proposed project site, any necessary mitigation measures, and a statement of the site's suitability for the proposed development and whether or not it will be safe from geologic hazard for its expected life. The study shall identify net developable areas, if any, based on landslide or ground shaking potential or erosion risk. Impacts from the development, such as those resulting from increased water runoff, shall also be determined. Such studies must be signed by a licensed Certified Engineering Geologist or Geotechnical Engineer and are subject to review and approval by City staff and/or contracted employees.
- 6.1-9 Require real estate transactions, development approval processes, and property titles to declare known or suspected seismic or geologic hazards on a property, including areas suspected of high or very high risk of liquefaction, shrink swell, or landslide.

Proposed Belmont Village Specific Plan Policies that Would Reduce the Impact

There are no policies in the Belmont Village Specific Plan that relate to this topic. General Plan policies also apply to the BVSP Area.

Proposed Climate Action Plan Measures that Would Reduce the Impact

There are no strategies in the Climate Action Plan that relate to this topic.

Mitigation Measures

None required.

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